ABSTRACT OF THE DISCLOSURE

Cigarettes are manufactured using modified automated cigarette making apparatus. Those cigarettes possess smokable rods having paper wrapping materials having additive materials applied thereto as patterns. The additive materials, which can have the forms of liquid or paste formulations (e.g., aqueous formulations incorporating starch or modified starch), are applied to a continuous paper web on the cigarette making apparatus. The formulation is applied to the paper web using application apparatus possessing rollers a series of roller. For example, additive material is applied to the roll face of a transfer roller due to roll interaction of that transfer roller with a pick-up roller; roll interaction of the transfer roller with an application roller causes transfer of the additive material from the transfer roller to the application roller; and additive material from the application roller is transferred to the paper web that passes between the application roller and a back-up roller. A radiant dryer is used to dry the additive material that has been applied to the paper web. The radiant dryer is located on one component of a two component assembly that is used to manufacture cigarettes. A first component of the two component assembly provides a source of paper web, applies additive material to that web in a pattern and dries the paper web; while a second component receives the paper web, supplies tobacco filler and manufactures a cigarette rod from the paper web and tobacco filler. An alternate assembly system provides a source of paper web, applies additive material to that web in a pattern, dries the paper web, and winds the treated paper web on to a bobbin; and that bobbin is later used to provide a source of paper web on a cigarette making machine unrolls that bobbin, receives the treated paper web from that bobbin, supplies tobacco filler and manufactures a cigarette rod from the paper web and tobacco filler. Spectrometric techniques are used to ensure proper registration of the additive material on the cigarette rods so manufactured, and to ensure proper quality of those cigarettes.